

EA Form R 1/2001

Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Note: Instructions to DNRC staff for preparing this EA can be found at:
http://www.dnrc.state.mt.us/eis_ea.html

Part I. Proposed Action Description

1. *Applicant/Contact name and address:* Carl and Benita Handford
PO Box 154
Big Timber, MT 59011
2. *Type of action:* Application for Beneficial Water Use Permit 43B-30022111
3. *Water source name:* Otter Creek
4. *Location affected by project:* SENESW Sec. 6, T01N R15E, Sweet Grass County
5. *Narrative summary of the proposed project, purpose, action to be taken, and benefits:*
The applicant proposes to install a 5 hp electric pump in Otter Creek in order to divert 40 gpm up to 10.2 acre-feet per year for the purpose of irrigating 3.8 acres of pasture located in the E2NESW, W2W2SE Sec. 6, T01N R06E, Sweet Grass County. The applicant proposes to use an existing pumping station that was installed and utilized by a previous owner for irrigating the same pasture. The previous owner, however, did not retain the water right to convey to the current landowner, the Handfords. Therefore, the Handfords are now applying for a new water right.

The DNRC shall issue a water use permit if an applicant proves the criteria in 85-2-311, MCA, are met.

6. *Agencies consulted during preparation of the Environmental Assessment:*
(include agencies with overlapping jurisdiction)
Montana Natural Heritage Program
Montana State Historic Preservation Office
Natural Resources and Conservation Service – Liberty County
Montana Bureau of Mines Website
Dept. of Environmental Quality Website (TMDL 303d listing)
MT Dept. of Fish, Wildlife & Parks Website (Montana Rivers Information System)
National Wetlands Inventory Website

Part II. Environmental Review

1. Environmental Impact Checklist:**PHYSICAL ENVIRONMENT****WATER QUANTITY, QUALITY AND DISTRIBUTION**

Water quantity - Assess whether the source of supply is identified as a chronically or periodically dewatered stream by DFWP. Assess whether the proposed use will worsen the already dewatered condition.

Determination: Otter Creek, tributary of Yellowstone River, is not considered a chronically or periodically dewatered stream by the Dept. of Fish, Wildlife and Parks (DFWP).

Water quality - Assess whether the stream is listed as water quality impaired or threatened by DEQ, and whether the proposed project will affect water quality.

Determination: The Montana Department of Environmental Quality listed Otter Creek, tributary of Yellowstone River, on the 2000 TMDL 303(d) list. However, the 2006 303(d) list shows that TMDLs are not required for this source because no pollutant-related use impairment was identified.

Groundwater - Assess if the proposed project impacts ground water quality or supply. If this is a groundwater appropriation, assess if it could impact adjacent surface water flows.

Determination: This is not a groundwater project.

DIVERSION WORKS - Assess whether the means of diversion, construction and operation of the appropriation works of the proposed project will impact any of the following: channel impacts, flow modifications, barriers, riparian areas, dams, well construction.

Determination: The applicant proposes to use an existing pumping station that was installed and utilized by a previous owner for irrigating the same pasture as the current owner is proposing. The pump is a centrifugal suction pump with a 5 hp electric motor conveying water through a 2" pipeline to a reel-line for a moveable sprinkler. The applicant is proposing to use 40 gpm. Since the existing pump station is still at the site and was used previously, it is unlikely the proposed project will have any additional impacts on the channel, flow, or riparian areas.

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species - Assess whether the proposed project will impact any threatened or endangered fish, wildlife, plants or aquatic species or any "species of special concern," or create a barrier to the migration or movement of fish or wildlife. For groundwater, assess whether the proposed project, including impacts on adjacent surface flows, would impact any threatened or endangered species or "species of special concern."

Determination: According to the Montana State Historical Society (Society), there have been no previously recorded sites within the designated search location. The Society further stated that

there is low likelihood cultural properties will be impacted and therefore feel that a recommendation for a cultural resource inventory is unwarranted at this time.

Wetlands - *Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted.*

Determination: No known wetlands exist in the project area.

Ponds - *For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.*

Determination: There are no plans for a reservoir associated with this application.

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE - *Assess whether there will be degradation of soil quality, alteration of soil stability, or moisture content. Assess whether the soils are heavy in salts that could cause saline seep.*

Determination: The applicant proposes to irrigate 3.8 acres of pasture that were also irrigated by a previous landowner. The landowner, however, did not retain the water right to convey to the current landowner. Therefore, the current landowners are now applying for a new water right. Website information indicates the soils in the area are mostly Korchea-Fairway-Albicalis loams. These are primarily loam, clay loam, and silt loams from 0 to 44 inches with sandy loam from 44 inches to 60 inches. The soils have 0 to 4 percent slopes and are deep, well-drained soils. The website further indicates that the soils in the irrigated area have severe limitations that reduce choice of plants or that require special conservation practices, or both. With sprinkler irrigation, the soil can be irrigated at very slow rates to allow for complete water intake with minimal runoff and ponding. Irrigation enhances crop cover during the growing season and provides more protection from wind and water erosion. Irrigation also increases plant residues returned to the soil. Soil structure is improved, microbe populations benefit from the added food source, and nitrogen fertility is enhanced. The soils will be temporarily disturbed when the pipeline is installed, however, disruption should be moderate and it is expected that the landowner will re-vegetate the area to reduce or eliminate impacts. There is little potential for saline seep within this area.

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS - *Assess impacts to existing vegetative cover. Assess whether the proposed project would result in the establishment or spread of noxious weeds.*

Determination: The applicant proposes to irrigate an area that was previously irrigated by a former owner. There will be some disturbance to the vegetative cover during the construction phase of the pipeline. These impacts, however, should be minor. It is expected that the landowner will re-vegetate the area to reduce or eliminate impacts. There is potential to establish or spread noxious weeds due to vegetation disturbance, however, it is the responsibility of the property owner to control weeds on their property.

AIR QUALITY - *Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.*

Determination: No impacts to air quality will occur as a result of this project.

HISTORICAL AND ARCHEOLOGICAL SITES - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project.*

Determination: According to the Montana Natural Heritage Program, there are two species of concern within the designated search location. The two species found are the Yellowstone Cutthroat Trout and the Bald Eagle. The trout is considered a sensitive species by the federal agencies and the eagle is considered threatened according to the US Forest Service. The Natural Heritage Program also identified another species of concern in the area, the Greater Sage-grouse. The Natural Heritage Program indicated there is an inferred probability that Greater Sage-grouse may be in the search location. Since the proposed irrigation project was previously irrigated by a former landowner, the project is not expected to have any significant impact on any historical or archeological sites in the area.

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY - *Assess any other impacts on environmental resources of land, water and energy not already addressed.*

Determination: No additional impacts on other environmental resources were identified.

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS - *Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.*

Determination: There are no known environmental plans or goals in this area.

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES - *Assess whether the proposed project will impact access to or the quality of recreational and wilderness activities.*

Determination: The project should have no significant or harmful impact on recreational or wilderness activities.

HUMAN HEALTH - *Assess whether the proposed project impacts on human health.*

Determination: The project should have no impact on human health.

PRIVATE PROPERTY - *Assess whether there are any government regulatory impacts on private property rights.*

Yes ___ No ___ If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.

Determination: There are no additional government regulatory impacts on private property rights associated with this application.

OTHER HUMAN ENVIRONMENTAL ISSUES - *For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.*

Impacts on:

- (a) Cultural uniqueness and diversity? No significant impact.
- (b) Local and state tax base and tax revenues? No significant impact.
- (c) Existing land uses? No significant impact.
- (d) Quantity and distribution of employment? No significant impact.
- (e) Distribution and density of population and housing? No significant impact.
- (f) Demands for government services? No significant impact.
- (g) Industrial and commercial activity? No significant impact.
- (h) Utilities? No significant impact.
- (i) Transportation? No significant impact.
- (j) Safety? No significant impact.
- (k) Other appropriate social and economic circumstances? No significant impact.

2. *Secondary and cumulative impacts on the physical environment and human population:*

Secondary Impacts: No secondary impacts are expected, particularly since the area was irrigated by a former landowner.

Cumulative Impacts: No cumulative impacts are known.

3. *Describe any mitigation/stipulation measures:* None

4. *Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:*

No action alternative: This alternative is to do nothing and the area would remain as natural pasture land, with no irrigation.

Alternative 1: Approve the application as submitted.

PART III. Conclusion

1. ***Preferred Alternative:*** Alternative 1.

2. ***Comments and Responses:*** None

3. ***Finding:***

Yes___ No **X** *Based on the significance criteria evaluated in this EA, is an EIS required?*

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action: No significant impacts have been identified, therefore an EIS is not necessary.

Name of person(s) responsible for preparation of EA:

Name: Dixie Brough

Title: Water Resources Specialist

Date: December 20, 2006